



USER'S GUIDE

CGFEB10xx-xxx

Slide-in-Module Media Converter

- **Copper to Fiber**
- **10/100/1000Base-TX to 1000Base-SX/LX**
- **Optional Tap Port**

TRANSITION Networks CGFEB10xx-xxx series Media Converters are designed to be installed in a PointSystem™ Conversion Center™. The Media Converter connects 10Base-TX, 100Base-TX, or 1000Base-TX twisted-pair copper cable to 1000Base-SX or 1000Base-LX fiber cable.

The **CGFEB10xx-10x** Media Converter is the standard model with one copper port and one fiber-optic port. (CGFEB1029-**100** and **-101** are intended to be installed together and CGFEB1029-**102** and **-103** are intended to be installed together.)

Part Number	Port 1 - Copper 10/100/1000-Base-TX	Port 2 - Duplex Fiber-Optic
CGFEB1013-100	RJ-45 100m (328 ft)*	SC, 1000Base-SX, 850 nm multimode, 220 m (720 ft)*
CGFEB1014-100	RJ-45 100m (328 ft)*	SC, 1000Base-LX, 1300 nm singlemode, 5 km (3.1 miles)*
CGFEB1015-100	RJ-45 100m (328 ft)*	SC, 1000Base-LX, 1310 nm singlemode, 25 km (15.5 miles)*
CGFEB1017-100	RJ-45 100m (328 ft)*	MT-RJ, 1000Base-SX, 1550 nm singlemode, 65 km (40.4 miles)*
CGFEB1024-100	RJ-45 100m (328 ft)*	MT-RJ, 1000Base-LX, 1310 nm multimode, 2 km (1.2 miles)**

Part Number	Port 1 - Copper 10/100/1000-Base-TX	Port 2 - Single Fiber-Optic 1000Base-SX, singlemode
CGFEB1029-100	RJ-45 100m (328 ft)*	SC, 1310 nm (TX) / 1550 nm (RX) 20 km (12.4 miles)*
CGFEB1029-101	RJ-45, 100m (328 ft)*	SC, 1550 nm (TX) / 1310 nm (RX) 20 km (12.4 miles)*
CGFEB1029-102	RJ-45 100m (328 ft)*	SC, 1310 nm (TX) / 1550 nm (RX) 40 km (24.9 miles)*
CGFEB1029-103	RJ-45 100m (328 ft)*	SC, 1550 nm (TX) / 1310 nm (RX) 40 km (24.9 miles)*

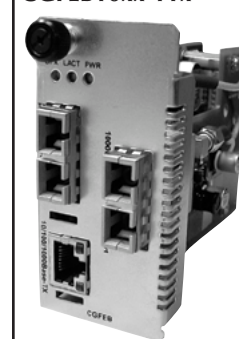
* Typical maximum cable distance. (Actual distance is dependent upon the physical characteristics of the network installation.)

The proprietary technology used in the **CGFEB1024-100 converter extends 1000Base-SX beyond 220 meters. However, TRANSITION Networks cannot guarantee a full 2 km distance on every installation. The distance varies on a case-by-case basis as it is largely dependent on the quality of the fiber, cable run installation, and splicing.

Installation	3
Operation	7
Cable Specifications	10
Technical Specifications	11
Fault Isolation and Correction	12
Compliance Information	14

CGFEB10xx-xxx

CGFEB10xx-11x



The **CGFEB10xx-11x** series Media Converter provides one copper port (port 1) and one fiber-optic port (port 2). In addition, the CGFEB10xx-11x series Media Converter provides a 1000Base-SX or LX Tap port (port 3) for an additional fiber connection.

The fiber 1000Base-SX/LX Tap Port (port 3) is used for monitoring the network connection and traffic in any direction. The fiber tap port “clones” the traffic so the network analysis does not impact the actual traffic.

(CGFEB1029-**110** and **-111** are intended to be installed together and CGFEB1029-**112** and **-113** are intended to be installed together.)

Part Number	Port 1 - Copper 10/100/1000-Base-TX	Port 2 and 3 - Duplex Fiber-Optic
CGFEB1013-110	RJ-45 100m (328 ft)*	SC, 1000Base-SX, 850 nm multimode, 220 m (720 ft)*
CGFEB1014-110	RJ-45 100m (328 ft)*	SC, 1000Base-LX, 1300 nm singlemode, 5 km (3.1 miles)*
CGFEB1015-110	RJ-45 100m (328 ft)*	SC, 1000Base-LX, 1310 nm singlemode, 25 km (15.5 miles)*
CGFEB1017-110	RJ-45 100m (328 ft)*	MT-RJ, 1000Base-SX, 1550 nm singlemode, 65 km (40.4 miles)*
CGFEB1024-110	RJ-45 100m (328 ft)*	MT-RJ, 1000Base-LX, 1310 nm multimode, 2 km (1.2 miles)**

Part Number	Port 1 - Copper 10/100/1000-Base-TX	Port 2 and 3 - Single Fiber-Optic 1000Base-SX, singlemode
CGFEB1029-110	RJ-45 100m (328 ft)*	SC, 1310 nm (TX) / 1550 nm (RX) 20 km (12.4 miles)*
CGFEB1029-111	RJ-45, 100m (328 ft)*	SC, 1550 nm (TX) / 1310 nm (RX) 20 km (12.4 miles)*
CGFEB1029-112	RJ-45 100m (328 ft)*	SC, 1310 nm (TX) / 1550 nm (RX) 40 km (24.9 miles)*
CGFEB1029-113	RJ-45 100m (328 ft)*	SC, 1550 nm (TX) / 1310 nm (RX) 40 km (24.9 miles)*

* Typical maximum cable distance. (Actual distance is dependent upon the physical characteristics of the network installation.)

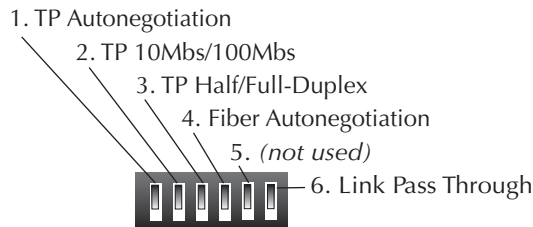
The proprietary technology used in the **CGFEB1024-110 converter extends 1000Base-SX beyond 220 meters. However, TRANSITION Networks cannot guarantee a full 2 km distance on every installation. The distance varies on a case-by-case basis as it is largely dependent on the quality of the fiber, cable run installation, and splicing.

INSTALLATION

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when setting the jumper (CGFEB10xx-11x models only), the six-position switch, and when installing the Media Converter Slide-in-Module in the PointSystem™ Conversion Center. Failure to observe this caution could result in damage to, and subsequent failure of, the Media Converter Slide-in-Module.

Six-Position Switch

The six-position switch is located on the circuit board of the Media Converter. Use a small, flatblade screwdriver (or a similar device) to set the switch according to the site the requirements (see the drawing below).



1. Twisted Pair Auto-negotiation

(UP) Enable Auto-Negotiation for the copper connection (see page 8).

(DOWN) Disable Auto-Negotiation for the copper connection.

2. Twisted Pair 10Mbps/100Mbps

(UP) Set copper connection speed to 100Mbps (Auto-Negotiation is OFF)

(DOWN) Set copper connection speed to 10Mbps (Auto-Negotiation is OFF)

3. Twisted Pair Full/Half Duplex

(UP) (Full Duplex) Operates at 100 Mb/s full-duplex (see page 8).

(DOWN) (Half Duplex) Operates at 100 Mb/s in duplex mode of the attached device (see page 9).

4. Fiber Auto-Negotiation

(UP) Enable Auto-Negotiation for the fiber connection (see page 8).

(DOWN) Disable Auto-Negotiation for the fiber connection.

5. (not used)

6. Link Pass-Through

(UP) Enables Link Pass-Through (see page 8).

(DOWN) Disables Link Pass-Through.

INSTALLATION - Continued

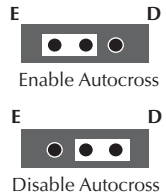
AutoCross Enable/Disable Jumper

The **AutoCross™** feature allows either straight-through (MDI) or crossover (MDI-X) cables to be used when connecting to 10Base-TX or 100Base-TX devices, such as hubs, transceivers, or network interface cards (NICs). AutoCross determines the characteristics of the cable connection and automatically configures the unit to link up, regardless of the cable configuration.

The AutoCross Enable/Disable jumper is located on the Media Converter internal circuit board (*labeled E and D -- see the figure to the right*). The Media Converters are shipped with the default jumper setting **AutoCross Enabled**.

Enabled Either straight-through or crossover cable can be used for all twisted-pair links.

Disabled Straight-through OR crossover twisted-pair cable, depending on installed site devices, **MUST** be installed at EACH twisted-pair link.



NOTE: The jumper settings should only be changed if the site requires the jumper settings be set to **AutoCross Disabled**.

The jumper is located on the Media Converter circuit board. Use small needle-nosed pliers or a similar device to set the jumper.

Install the Slide-In-Module in the PointSystem™ Chassis

CAUTION: Any chassis slot in which a Media Converter Slide-in-Module is **NOT** installed must have a protective plate. Failure to observe this caution will void Class A and/or Class B compliance.

1a. CGFEB10xx-10x:

Remove one (1) protective plate from one (1) installation slot on the Conversion Center Chassis by removing the one (1) screw that secures the protective plate to the chassis.

1b. CGFEB10xx-11x:

Remove two (2) Management Module protective plates from two (2) installation slots at the far-left position by removing the one (1) screw that secures each protective plate to the Conversion Center chassis.

2. Carefully slide the Management Module into the installation slot(s), aligning the Management Module with the installation guides.

3. Ensure that the Slide-in-Module is firmly seated against backplane.

4. Rotate the attached panel fastener screw clockwise to secure the Slide-in-Module to the chassis.

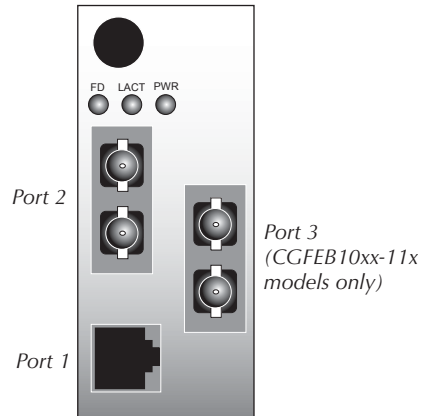
INSTALLATION - Continued

Port Locations

The drawing to the right illustrates the locations of Port 1, Port 2 and Port 3.

The SGFEB10xx-10x models include Port 1 and Port 2.

The SGFEB10xx-11x models include Port1, Port 2, and Port 3.



Installing the Cable - Port 1

PORT 1: 10/100/1000Base-TX Copper Port

1. Locate or build 10, 100, or 1000Base-TX compliant copper cables with male, RJ-45 connectors installed at both ends.
2. Connect the RJ-45 connector at one end of the cable to the Media Converter's **10/100/1000Base-TX** RJ-45port (port 1).
3. Connect the RJ-45 connector at the other end of the cable to the **10, 100, or 1000Base-TX** RJ-45 port on the other device (switch, workstation, etc.).

NOTE: AutoCross™ allows the use of either straight-through or crossover configuration cables.

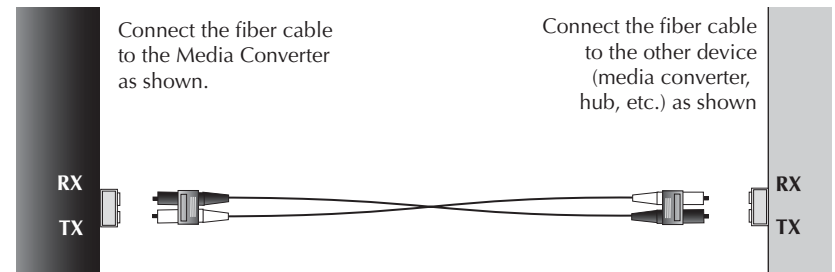


INSTALLATION - Continued

Install the Cable for the Tap Port - Ports 2 and 3

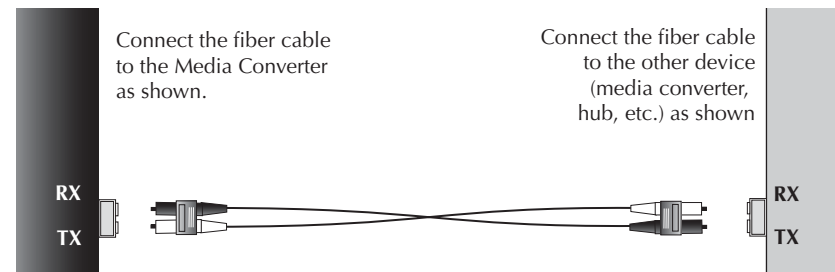
PORT 2: 1000Base-SX/LX Fiber Port

1. Locate or build 1000Base-SX/LX compliant fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cables to the Media Converter's **1000Base-SX/LX** fiber port (port 2) as described:
 - Connect the male **TX** cable connector the female **TX** connector.
 - Connect the male **RX** cable connector to the female **RX** connector.
3. Connect the fiber cables to the **1000Base-SX-LX** fiber port on the other device (another media converter, hub, etc.) as described:
 - Connect the male **TX** cable connector the female **RX** connector.
 - Connect the male **RX** cable connector to the female **TX** connector.



PORT 3: 1000Base-SX/LX Tap Port (CGFEB10xx-11x Model Only)

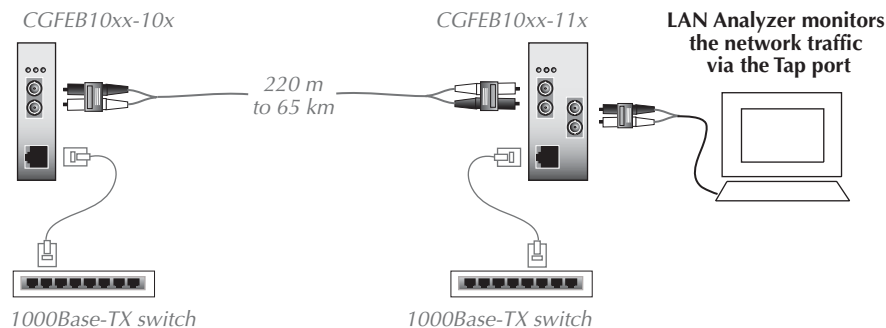
1. Locate or build 1000Base-SX/LX compliant fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cables to the Media Converter's **1000Base-SX/LX** Tap port (port 3) as described:
 - Connect the male **TX** cable connector the female **TX** connector.
 - Connect the male **RX** cable connector to the female **RX** connector.
3. Connect the fiber cables to the **1000Base-SX/LX** fiber port on the other device (another media converter, hub, etc.) as described:
 - Connect the male **TX** cable connector the female **RX** connector.
 - Connect the male **RX** cable connector to the female **TX** connector.



INSTALLATION - Continued

CGFEB10xx-11x in the Network

The diagram below illustrates how the fiber Tap port of the CGFEB10xx-11x is used to link to a LAN analyzer in order to monitor the fiber traffic.



Power the Slide-In-Module

The Slide-In-Module is powered through the TRANSITION Networks PointSystem™ Conversion Center™.

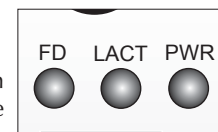
OPERATION

Status LEDs

The CGFEB10xx-x00 Series Media Converter is designed to operate without user intervention. Use the status LEDs to monitor the Media Converter operation in the network.

FIBER STATUS LEDs

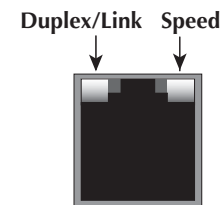
The status LEDs for the 1000Base-SX-LX fiber connection (labeled DPX, LACT and PWR) are located next to the fiber port (Port 2).



PWR	<i>Steady Green</i>	(Power) Connection to external AC power.
LACT	<i>Steady Green</i>	(Link Activity) A link has been established for the Fiber connection.
	<i>Flashing Green</i>	The Fiber connection is transmitting/recieving data.
DPX	<i>Steady Green</i>	(Duplex) Full-duplex mode for the Fiber connection.
	<i>Off</i>	Half-duplex mode for the Fiber connection.

COPPER STATUS LEDs

The status LEDs for the copper connection are integrated into the RJ-45 port. These LEDs are not labeled on the Media Converter. Refer to the drawing to the right for their locations.



Duplex/Link	<i>Steady Yellow</i>	A link in Half-Duplex mode has been established for the Copper connection.
	<i>Flashing Yellow</i>	The Copper connection is transmitting/receiving data in Half-Duplex mode.
	<i>Steady Green</i>	A link in Full-Duplex mode has been established for the Copper connection.
	<i>Flashing Green</i>	The Copper connection is transmitting/receiving data in Full-Duplex mode.
Speed	<i>Off</i>	10 Mb/s operation.
	<i>Yellow</i>	100 Mb/s operation.
	<i>Green</i>	1000 Mb/s operation.

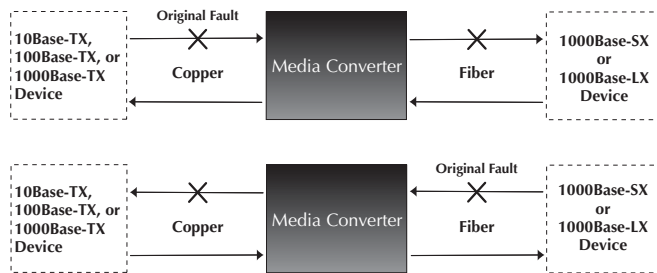
OPERATION - Continued

Auto-Negotiation

The **Auto-Negotiation** feature allows the Media Converter to be used with 10Base-TX, 100Base-TX, 1000Base-TX, 1000Base-SX, and 1000Base-LX ports. Using auto-negotiation, the Media Converter brings up the copper and fiber links in the highest speed and mode possible for all the attached network devices.

Link Pass-Through

When the **Link Pass-Through** (or **LinkAlert™**) feature is activated, a fault on one side of the Media Converter stops the signal and data transmission on the other side of the Media Converter. If the Media Converter does not detect a good link on the copper side, the Media Converter disables all transmission (including active-idle) on the fiber side.



Full-Duplex Network

In a full-duplex network, maximum cable lengths are determined by **the type of cables** that are used. See page 1 (front cover) for the cable specifications for the different CGFEB10xx-xx models.

The 512-Bit Rule **does not apply** in a full-duplex network.

Half-Duplex Network (512-Bit Rule)

In a half-duplex network, the maximum cable lengths are determined by the round trip delay limitations of each Fast Ethernet™ **collision domain**. (A collision domain is the longest path between any two terminal devices, e.g. a **terminal, switch, or router**.)

The 512-Bit Rule determines the maximum length of cable permitted by calculating the round-trip delay in **bit-times (BT)** of a particular collision domain. If the result is less than or equal to 512 BT, the path is good.

For more information on the 512-Bit Rule, see the white paper titled "Collision Domains" on the TRANSITION Networks website at:

http://www.transition.com/learning/whitepapers/collldom_wp.htm

CABLE SPECIFICATION

The physical characteristics must meet or exceed IEEE 802.3™ specifications.

Fiber Cable

Bit Error Rate:	<10-9	
Singlemode fiber (recommended):	9 µm	
Multimode fiber (recommended):	62.5/125 µm	
Multimode fiber (optional):	100/140, 85/140, 50/125 µm	
CGFEB1013-100, CGFEB1013-110	850 nm multimode	
Fiber Optic Transmitter Power:	min: -9.5 dBm	max: -4.0 dBm
Fiber Optic Receiver Sensitivity:	min: -17.0 dBm	max: 0.0 dBm
Link Budget:	7.5 dB	
CGFEB1014-100, CGFEB1014-110	1300 nm singlemode	
Fiber Optic Transmitter Power:	min: -13.0 dBm	max: -3.0 dBm
Fiber Optic Receiver Sensitivity:	min: -20.0 dBm	max: -3.0 dBm
Link Budget:	7.0 dB	
CGFEB1015-100, CGFEB1015-110	1310 nm singlemode	
Fiber Optic Transmitter Power:	min: -5.0 dBm	max: 0.0 dBm
Fiber Optic Receiver Sensitivity:	min: -20.0 dBm	max: -3.0 dBm
Link Budget:	15.0 dB	
CGFEB1017-100, CGFEB1017-110	1550 nm singlemode	
Fiber Optic Transmitter Power:	min: -3.0 dBm	max: 2.0 dBm
Fiber Optic Receiver Sensitivity:	min: -23.0 dBm	max: -3.0 dBm
Link Budget:	20.0 dB	
CGFEB1029-100, CGFEB1029-110	1310(TX)/1550(RX) nm singlemode	
Fiber Optic Transmitter Power:	min: -14.0 dBm	max: -8.0 dBm
Fiber Optic Receiver Sensitivity:	min: -33.0 dBm	max: -3.0 dBm
Link Budget:	19.0 dB	
CGFEB1029-101, CGFEB1029-111	1550(TX)/1310(RX) nm singlemode	
Fiber Optic Transmitter Power:	min: -14.0 dBm	max: -8.0 dBm
Fiber Optic Receiver Sensitivity:	min: -33.0 dBm	max: -3.0 dBm
Link Budget:	19.0 dB	
CGFEB1029-102, CGFEB1029-112	1310(TX)/1550(RX) nm singlemode	
Fiber Optic Transmitter Power:	min: -8.0 dBm	max: -3.0 dBm
Fiber Optic Receiver Sensitivity:	min: -33.0 dBm	max: -3.0 dBm
Link Budget:	25.0 dB	
CGFEB1029-103, CGFEB1029-113	1550(TX)/1310(RX) nm singlemode	
Fiber Optic Transmitter Power:	min: -8.0 dBm	max: -3.0 dBm
Fiber Optic Receiver Sensitivity:	min: -33.0 dBm	max: -3.0 dBm
Link Budget:	25.0 dB	
CGFEB1024-100, CGFEB1024-110	1310 nm multimode **	
Fiber Optic Transmitter Power:	min: -3.0 dBm	max: -10.0 dBm
Fiber Optic Receiver Sensitivity:	min: -17.0 dBm	max: -3.0 dBm
Link Budget:	14.0 dB	

Fiber cable for CGFEB1024-100 and CGFEB1024-110 **MUST be 62.5/125 µm.

CABLE SPECIFICATIONS - Continued

Copper Cable

Category 5:

Gauge:	24 to 22 AWG
Attenuation:	22.0 dB /100m @ 100 MHz
Maximum Cable Distance:	100 meters

- Straight-Through (MDI) **OR** Crossover (MDX) cable may be used.
- Shielded Twisted-Pair (STP) **OR** Unshielded Twisted-Pair (UTP) may be used.
- All pin pairs (1&2, 3&6, 4&5, 7&8) are active pins in a Gigabit Ethernet™ network.
- Use only dedicated wire pairs for the active pins:
(e.g., blue/white & white/blue, orange/white & white/orange, etc.)
- Do not use flat or silver satin wire.

TECHNICAL SPECIFICATIONS

Standards: IEEE 802.3™

CGFEB10xx-10x:

Case Dimensions:	4.8" x 3.25" x 0.85" (122 x 82 x 22 mm)
Weight:	4.5 oz (128 g)
Power Consumption:	7.28 watts

CGFEB10xx-11x:

Case Dimensions:	4.8" x 3.25" x 1.7" (122 x 82 x 43 mm)
Weight:	7.5 oz (213 g)
Power Consumption:	7.84 watts

Latency:	64	256	1024	1518	(frame size)
1000Base-T:	3.2	4.8	10.9	14.8	micro seconds
1000Base-SX/LX:	3.2	4.8	10.9	14.8	micro seconds

Data Rate (copper): 10, 100, 1000 Mb/s

Data Rate (fiber): 1000 Mb/s

Environment: Typical Operating Temp: 0-50°C (32-122°F)
Storage Temperature: -40-85°C (-40-185°F)
Humidity: 5-95%, non condensing
Altitude: 0-10,000 feet

Warranty: Lifetime

FAULT ISOLATION and CORRECTION

If the Media Converter fails, isolate and correct the fault by determining the answers to the following questions and then taking the indicated action:

1. Is the Power LED on the Media Converter illuminated?

NO

- Is the Media Converter inserted properly into the chassis?
- Is the power cord properly installed in the chassis and in the grounded AC outlet?
- Does the grounded AC outlet provide power?
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES

- Proceed to step 2.

2. Is the (TP) Duplex LED illuminated yellow OR green?

NO

- Check the twisted pair cables for proper connection.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES - Yellow

- The Media Converter has selected half-duplex mode. If this is not the correct mode, disconnect and reconnect the twisted pair cable to restart the initialization process.
- Proceed to step 3.

YES - Green

- The Media Converter has selected full-duplex mode. If this is not the correct mode, disconnect and reconnect the twisted pair cable to restart the initialization process.
- Proceed to step 3.

3. Is the (Fiber) LACT LED illuminated?

NO

- Check the fiber cables for proper connection.
- Verify that the TX and RX cables on the Media Converter are connected to the RX and TX ports, respectively, on the other device.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES

- Proceed to step 4.

FAULT ISOLATION and CORRECTION

4. Is the (TP) Speed LED illuminated?

NO

- The Media Converter has selected 10 Mb/s operation. If this is not the correct speed, disconnect and reconnect the twisted pair cable to restart the initialization process.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES - Flashing Yellow

- The Media Converter has selected 100 Mb/s speed. If this is not the correct speed, disconnect and reconnect the twisted pair cable to restart the initialization process.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES - Flashing Green

- The Media Converter has selected 1000 Mb/s operation. If this is not the correct speed, disconnect and reconnect the twisted pair cable to restart the initialization process.
- Contact Technical Support: (800) 260-1312.

SNMP

See the on-line documentation that comes with TRANSITION Networks FocalPoint™ software for applicable commands and usage.

Use SNMP at an attached terminal or at a remote location to monitor the Media Converter by monitoring:

- Copper and fiber link status
- Copper and fiber port duplex
- Copper port speed

Also, use SNMP to enter network commands that:

- Set copper Full/Half-duplex
- Set copper connection speed (10Mbps / 100Mbps)
- Enable/Disable Link Pass-Through
- Enable/Disable Auto-Negotiation
- Select transmit (TX) or receive (RX) on the optional Tap port

COMPLIANCE INFORMATION

UL Listed

C-UL Listed (Canada)

CISPR22/EN55022 Class A + EN55024

CE Mark

FCC Regulations

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class Aprescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Regulations

Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Achtung !

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten, in welchen Fällen der Benutzer für entsprechende Gegenmaßnahmen verantwortlich ist.

Attention !

Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures spécifiques appropriées.



CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentliches Telekommunikationsnetz in den EG-Mitgliedstaaten verstößt gegen die jeweiligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

CONTACT US

Technical Support

Technical support is available 7:00 AM - 6:00 PM CST (GMT -6:00)

US and Canada: **1-800-260-1312**

International: **00-1-952-941-7600**

Transition NOW

Chat live via the Web with TRANSITION Networks Technical Support.

Log onto **www.transition.com** and click the **TRANSITION NOW** link.

Web-Based Seminars

TRANSITION Networks provides seminars via live web-based training.

Log onto **www.transition.com** and click the **Learning Center** link.

E-Mail

Ask a question anytime by sending an e-mail to our technical support staff.

techsupport@transition.com

Address

TRANSITION Networks

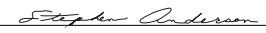
6475 City West Parkway

Minneapolis, MN 55344, USA

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		DECLARATION OF CONFORMITY	
Name of Mfg:	Transition Networks 6475 City West Parkway, Minneapolis MN 55344 USA		
Model:	CGFEB10xx-xxx Series Media Converters		
Part Number(s):	CGFEB1013-100, CGFEB1014-100, CGFEB1015-100, CGFEB1017-100, CGFEB1024-100, CGFEB1029-100, CGFEB1029-101, CGFEB1029-102, CGFEB1029-103, CGFEB1013-110, CGFEB1014-110, CGFEB1015-110, CGFEB1017-110, CGFEB1024-110, CGFEB1029-110, CGFEB1029-111, CGFEB1029-112, CGFEB1029-113		
Regulation:	EMC Directive 89/336/EEC		
Purpose: To declare that the CGFEB10xx-xxx to which this declaration refers is in conformity with the following standards. EN 55022 ClassA; EN 55024; FCC Class A; IEEE802.3-2000; UL 1950			
<i>I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).</i>			
 Stephen Anderson, Vice-President of Engineering		April 1, 2003 Date	

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